

What is claimed is:

1. An antibody- toxic moiety conjugate comprising: an antibody that
5 specifically recognizes a molecule expressed only on activated T cells and a toxic moiety.
2. The antibody- toxic moiety conjugate of claim 1, wherein the antibody
is specifically reactive with CTLA4.
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3. The antibody- toxic moiety conjugate of claim 2, wherein the antibody
is specifically reactive with human CTLA4.
4. The antibody- toxic moiety conjugate of claim 2, wherein the antibody
15 is a monoclonal antibody.
5. The antibody- toxic moiety conjugate of claim 2, wherein the antibody
binds to a region of the CTLA4 molecule that blocks the binding of CTLA4 to CD80
or CD86.
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6. The antibody- toxic moiety conjugate of claim 2, wherein the antibody
binds to a region of the CTLA4 in spatial proximity to the site of CTLA4 binding to a
costimulatory molecule.
- 25 7. The antibody- toxic moiety conjugate of claim 2, wherein the
substitution of amino acid 83 in the amino acid sequence of human CTLA4 shown in
SEQ ID NO:2 results in modulation of binding of the antibody.
8. The antibody- toxic moiety conjugate of claim 2, wherein the toxic
30 moiety is a carbohydrate.

9. The antibody- toxic moiety conjugate of claim 8, wherein the carbohydrate is calicheamicin.

10. The antibody- toxic moiety conjugate of claim 2, wherein the toxic moiety is a naturally occurring bacterial product.

11. The antibody- toxic moiety conjugate of claim 10, wherein the toxic moiety is selected from the group consisting of ricin A chain and saporin.

12. The antibody- toxic moiety conjugate of claim 2, wherein the antibody is produced by a hybridoma selected from the group consisting of: ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), and ATCC Accession No.____ (hybridoma).

13. The antibody- toxic moiety conjugate of claim 2, wherein the antibody is humanized.

14. A humanized antibody that is specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:8.

15. A humanized antibody that is specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:10.

16. A method of modulating the immune response comprising contacting a cell with an antibody- toxic moiety conjugate of claim 2.

17. The method of claim 16, wherein the antibody- toxic moiety conjugate is administered to a subject and the step of contacting is performed *in vivo*.

18. The method of claim 17, wherein the subject is suffering from a disorder or condition that would benefit from downmodulation of an ongoing immune response wherein the disorder or condition is selected from the group consisting of: an autoimmune disorder, an immune response to a graft, an allergic response, an
5 immune response to a therapeutic protein.

19. The method of claim 16, wherein the step of contacting is performed *in vitro*.

10 20. A method of modulating the immune response comprising contacting a cell with an antibody specifically reactive with CTLA4, wherein the antibody is produced by a hybridoma selected from the group consisting of: ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma),
15 ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), ATCC Accession No.____ (hybridoma), and ATCC Accession No.____ (hybridoma).

20 21. A method of modulating the immune response comprising contacting a cell with an antibody specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:8.

25 22. A method of modulating the immune response comprising contacting a cell with an antibody specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:10.

30 23. A method of downmodulating the immune response comprising contacting a cell with an antibody- toxic moiety conjugate, wherein the antibody specifically recognizes CTLA4.